

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

PLUS 7/31/04

Butler, Douglas

From: PLUS  
Sent: Friday, July 30, 2004 12:51 PM  
To: Butler, Douglas  
Subject: PLUS Results for 10670994

Here are the PLUS search results for 10670994.

This search was prepared by the staff of the Scientific and Technical Information Center, SIRA. If you have questions or comments about this search, please reply via email to PLUS@uspto.gov.



10670994\_QUAL.txt



10670994\_LIST.txt



10670994\_WEST.txt



10670994\_EAST.txt



10670994.cast



10670994\_CLS.txt



10670994\_CLSTITLES.txt



10670994\_WDS.txt

xl

PLUS Search Results for S/N 10670994, Searched July 30, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

6454061	4278219	5743516
6612410	4284177	5781873
5294077	4298102	5808890
4805882	4298101	5890081
6148252	4452437	5911290
4284255	4502575	5924528
5330132	4506869	5934028
6135434	4533166	5934422
4274517	4614255	5944153
4451978	4616782	6003644
4451964	4771866	6006874
4500075	4795009	6026939
5190126	4828237	6079526
5197573	4874066	6102170
5316114	4893699	6164424
5368142	4905798	6213262
5431259	4946009	6220406
5649611	4948163	6213262
5775677	5024301	6220406
6196361	5054809	6241391
6385831	5193655	6290034
6199820	5193845	6311812
4404831	5226512	6340081
4858857	5234084	6378885
5318157	5244064	6460664
4368900	5277283	6471230
4406475	5293971	6474454
4445673	5310139	6581948
4588171	5322320	6604751
4832321	5368141	6662913
4856763	5398184	6082715
5293968	5404973	4903983
5362095	5409089	5379222
5458219	5440488	4529213
5911426	5485377	5944283
5326129	5490068	5912058
5244063	5509512	4325541
4445672	5510985	4907680
4620619	5515273	3876244
5454452	5542509	4326733
6029958	5559701	4433872
6221930	5566794	4468050
6221930	5566796	4468739
4518056	5572426	4475577
4809179	5623848	4483377
6343677	5649691	4632355
3870130	5657676	4756549
3844544	5682967	4838394
4002051	5709290	4852906

10670994\_LIST

4274515 5718446 4856815

10670994\_EAST

(6454061  
6612410  
5294077  
4805882  
6148252  
4284255  
5330132  
6135434  
4274517  
4451978  
4451964  
4500075  
5190126  
5197573  
5316114  
5368142  
5431259  
5649611  
5775677  
6196361  
6385831  
6199820  
4404831  
4858857  
5318157  
4368900  
4406475  
4445673  
4588171  
4832321  
4856763  
5293968  
5362095  
5458219  
5911426  
5326129  
5244063  
4445672  
4620619  
5454452  
6029958  
6221930  
6221930  
4518056  
4809179  
6343677  
3870130  
3844544  
4002051  
4274515).pn.  
(4278219  
4284177  
4298102  
4298101  
4452437  
4502575  
4506869  
4533166  
4614255

10670994\_EAST

4616782  
4771866  
4795009  
4828237  
4874066  
4893699  
4905798  
4946009  
4948163  
5024301  
5054809  
5193655  
5193845  
5226512  
5234084  
5244064  
5277283  
5293971  
5310139  
5322320  
5368141  
5398184  
5404973  
5409089  
5440488  
5485377  
5490068  
5509512  
5510985  
5515273  
5542509  
5559701  
5566794  
5566796  
5572426  
5623848  
5649691  
5657676  
5682967  
5709290  
5718446) .pn.  
(5743516  
5781873  
5808890  
5890081  
5911290  
5924528  
5934028  
5934422  
5944153  
6003644  
6006874  
6026939  
6079526  
6102170  
6164424  
6213262  
6220406  
6213262

10670994\_EAST

6220406  
6241391  
6290034  
6311812  
6340081  
6378885  
6460664  
6471230  
6474454  
6581948  
6604751  
6662913  
6082715  
4903983  
5379222  
4529213  
5944283  
5912058  
4325541  
4907680  
3876244  
4326733  
4433872  
4468050  
4468739  
4475577  
4483377  
4632355  
4756549  
4838394  
4852906  
4856815) .pn.

10670994\_CLS

Most Frequently Occurring Classifications of Patents Returned  
From A Search of 10670994 on July 30, 2004

Original Classifications

10 701/37  
6 188/266.5  
6 188/315  
4 188/280  
4 188/282.1  
4 188/282.3  
4 188/322.15  
4 244/104FP  
3 188/266.7  
3 188/275  
3 188/284  
3 188/299.1  
3 280/5.503  
2 141/349  
2 188/266.4  
2 188/269  
2 188/282.2  
2 188/282.4  
2 188/282.6  
2 188/322.13  
2 267/131  
2 267/64.22  
2 267/64.24  
2 280/276  
2 280/284  
2 280/5.515  
2 521/155

*considered  
re Field  
of Search*

Cross-Reference Classifications

19 188/322.15  
11 280/5.515  
10 188/315  
10 188/322.22  
8 188/318  
7 188/317  
7 188/322.13  
6 267/226  
6 267/64.15  
5 188/266.6  
5 188/287  
5 188/314  
5 188/322.19  
5 267/64.28  
5 280/5.504  
5 280/DIG 1  
4 188/266.2  
4 188/266.4  
4 188/289  
4 188/319.1  
4 701/48  
3 188/266.5  
3 188/282.4  
3 188/282.5  
3 188/284



3 188/286  
3 188/316  
3 188/322.14  
3 188/322.17  
3 188/322.21  
3 267/124  
3 267/136  
3 267/140  
3 267/64.13  
3 267/64.16  
3 701/37  
2 53/101  
2 53/403  
2 53/88  
2 137/554  
2 137/625.37  
2 188/266.3  
2 188/266.8  
2 188/275  
2 188/282.1  
2 188/282.7  
2 188/282.8  
2 188/285  
2 188/322.12  
2 188/322.16  
2 244/104FP  
2 244/104R  
2 248/421  
2 248/560  
2 248/615  
2 248/634  
2 251/129.15  
2 267/126  
2 267/127  
2 267/217  
2 267/221  
2 267/64.11  
2 267/64.23  
2 267/64.25  
2 277/552  
2 277/565  
2 280/124.101  
2 280/276  
2 280/5.507  
2 280/5.51  
2 280/5.513  
2 280/5.514  
2 293/102  
2 293/120  
2 293/132  
2 293/134  
2 293/136  
2 428/423.1  
2 521/174  
2 521/50

## Combined Classifications

23 188/322.15  
16 188/315

13 280/5.515  
13 701/37  
10 188/322.22  
9 188/266.5  
9 188/318  
9 188/322.13  
7 188/317  
7 267/226  
7 267/64.15  
6 188/266.4  
6 188/266.6  
6 188/282.1  
6 188/284  
6 188/287  
6 188/322.19  
6 244/104FP  
5 188/275  
5 188/282.3  
5 188/282.4  
5 188/289  
5 188/314  
5 267/64.28  
5 280/5.504  
5 280/DIG 1  
4 188/266.2  
4 188/280  
4 188/299.1  
4 188/319.1  
4 188/322.14  
4 188/322.21  
4 267/64.16  
4 280/276  
4 280/5.503  
4 701/48  
3 188/266.7  
3 188/269  
3 188/282.5  
3 188/285  
3 188/286  
3 188/316  
3 188/322.17  
3 267/124  
3 267/136  
3 267/140  
3 267/221  
3 267/64.11  
3 267/64.13  
3 267/64.24  
3 267/64.25  
3 280/5.507  
3 280/5.51  
3 280/5.513  
3 280/5.514  
3 293/120  
2 53/101  
2 53/403  
2 53/88  
2 137/554  
2 137/625.37

10670994\_CLS

2 141/349  
2 188/266.3  
2 188/266.8  
2 188/282.2  
2 188/282.6  
2 188/282.7  
2 188/282.8  
2 188/322.12  
2 188/322.16  
2 244/100R  
2 244/102R  
2 244/104R  
2 248/421  
2 248/550  
2 248/560  
2 248/615  
2 248/634  
2 251/129.15  
2 267/126  
2 267/127  
2 267/131  
2 267/217  
2 267/64.21  
2 267/64.22  
2 267/64.23  
2 267/64.26  
2 277/552  
2 277/565  
2 280/124.101  
2 280/124.158  
2 280/284  
2 293/102  
2 293/132  
2 293/134  
2 293/136  
2 428/423.1  
2 521/155  
2 521/174  
2 521/50  
2 701/38

## 10670994\_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned  
From A Search of 10670994 on July 30, 2004

- 23 188/322.15 (4 OR, 19 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/322.13 .Valve structure or location  
188/322.15 ..Piston valve detail (e.g., seat design,  
structural arrangement, metering element)
- 16 188/315 (6 OR, 10 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/297 .Having a thrust member with a variable volume  
chamber (e.g., coaxial or telescoping tubes, compensat  
ing  
reservoir)  
188/313 ..With valve controlling fluid flow between  
chambers or compartments of the chamber  
188/314 ...With reservoir for fluid  
188/315 ....Annular reservoir
- 13 280/5.515 (2 OR, 11 XR)  
Class 280 : LAND VEHICLES  
280/5.5 SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
(I.E., ACTIVE SUSPENSION CONTROL)  
280/5.515 .Suspension stiffness for ride comfort (e.g.,  
damping coefficient, spring rate)
- 13 701/37 (10 OR, 3 XR)  
Class 701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND  
RELATIVE LOCATION  
701/1 VEHICLE CONTROL, GUIDANCE, OPERATION, OR  
INDICATION  
701/36 .Vehicle subsystem or accessory control  
701/37 ..Suspension control
- 10 188/322.22 (0 OR, 10 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/322.22 .Thrust member or piston structure
- 9 188/266.5 (6 OR, 3 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/266.1 .Motion damped from condition (e.g., bump,  
speed change) detected outside of retarder  
188/266.2 ..Condition actuates valve or regulator  
188/266.5 ...Of the pulsating or reciprocating type
- 9 188/318 (1 OR, 8 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/297 .Having a thrust member with a variable volume  
chamber (e.g., coaxial or telescoping tubes, compensat  
ing  
reservoir)  
188/316 ..Fluid through or around piston within chamber

## 10670994\_CLSTITLES

188/317 ...Via fixed or variable orifice in piston  
 188/318 ....And passage venting fluid external to  
 chamber

9 188/322.13 (2 OR, 7 XR)

Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/322.13 .Valve structure or location

7 188/317 (0 OR, 7 XR)

Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/297 .Having a thrust member with a variable volume  
 chamber (e.g., coaxial or telescoping tubes, compensati

ng

reservoir)

188/316 ..Fluid through or around piston within chamber

188/317 ...Via fixed or variable orifice in piston

7 267/226 (1 OR, 6 XR)

Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/195 .Mechanical spring and nonresilient retarder  
 (e.g., shock absorber)  
 267/217 ..Fluid retarder  
 267/221 ...Helical coil spring  
 267/226 ....Spring within coaxial fluid chamber

7 267/64.15 (1 OR, 6 XR)

Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/64.11 .Comprising compressible fluid  
 267/64.15 ..With retarder

6 188/266.4 (2 OR, 4 XR)

Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/266.1 .Motion damped from condition (e.g., bump,  
 speed change) detected outside of retarder  
 188/266.2 ..Condition actuates valve or regulator  
 188/266.3 ...Of the rotary type  
 188/266.4 ....Having plural openings

6 188/266.6 (1 OR, 5 XR)

Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/266.1 .Motion damped from condition (e.g., bump,  
 speed change) detected outside of retarder  
 188/266.2 ..Condition actuates valve or regulator  
 188/266.5 ...Of the pulsating or reciprocating type  
 188/266.6 ....Side mounted

6 188/282.1 (4 OR, 2 XR)

Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/281 .Resistance alters relative to direction of  
 thrust member (e.g., high resistance in one direction, 1

OW

in the other)  
 188/282.1 ..Via valved orifice in thrust member

6 188/284 (3 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/284 .Position of thrust member relative to chamber

6 188/287 (1 OR, 5 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/284 .Position of thrust member relative to chamber

188/286 ..Having aperture in chamber wall  
 188/287 ...Plural, successively encountered apertures

6 188/322.19 (1 OR, 5 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/322.19 .Cylinder structure

6 244/104FP (4 OR, 2 XR)  
 Class 244 : AERONAUTICS  
 244/100R LANDING GEAR  
 244/103R .Wheel  
 244/104R ..Resiliently mounted  
 244/104FP ...Fluid pressure

5 188/275 (3 OR, 2 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/275 .With fluid regulated in response to inertia of  
 valve member

5 188/282.3 (4 OR, 1 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/281 .Resistance alters relative to direction of  
 thrust member (e.g., high resistance in one direction,  
 low in the other)  
 188/282.1 ..Via valved orifice in thrust member  
 188/282.2 ...Valve actuated by electrical system  
 188/282.3 ....System initiated by a pressure change or  
 feedback

5 188/282.4 (2 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/281 .Resistance alters relative to direction of  
 thrust member (e.g., high resistance in one direction,  
 low in the other)  
 188/282.1 ..Via valved orifice in thrust member  
 188/282.2 ...Valve actuated by electrical system  
 188/282.4 ....System having distinct selections (e.g.,

10670994\_CLSTITLES  
hard, medium, soft)

- 5 188/289 (1 OR, 4 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/284 .Position of thrust member relative to chamber  
  
188/289 ..Having varying area of metering rod extending  
through orifice in thrust member
- 5 188/314 (0 OR, 5 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/297 .Having a thrust member with a variable volume  
chamber (e.g., coaxial or telescoping tubes, compensati  
ng  
reservoir)  
188/313 ..With valve controlling fluid flow between  
chambers or compartments of the chamber  
188/314 ...With reservoir for fluid
- 5 267/64.28 (0 OR, 5 XR)  
Class 267 : SPRING DEVICES  
267/2 VEHICLE  
267/64.11 .Comprising compressible fluid  
267/64.28 ..Including means for charging or discharging  
spring
- 5 280/5.504 (0 OR, 5 XR)  
Class 280 : LAND VEHICLES  
280/5.5 SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
(I.E., ACTIVE SUSPENSION CONTROL)  
280/5.504 .Including condition or parameter adjustment  
occurring at longitudinally spaced vehicle axles
- 5 280/DIG 1 (0 OR, 5 XR)  
Class 280 : LAND VEHICLES  
280/DIG 1 Load responsive (leveling of vehicle)
- 4 188/266.2 (0 OR, 4 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/266.1 .Motion damped from condition (e.g., bump,  
speed change) detected outside of retarder  
188/266.2 ..Condition actuates valve or regulator
- 4 188/280 (4 OR, 0 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/280 .Relative speed of thrust member or fluid flow
- 4 188/299.1 (3 OR, 1 XR)  
Class 188 : BRAKES  
188/266 INTERNAL-RESISTANCE MOTION RETARDER  
188/299.1 .Controlled by an operator (e.g., vehicle  
driver) remote from retarder
- 4 188/319.1 (0 OR, 4 XR)

10670994\_CLSTITLES

Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/297 .Having a thrust member with a variable volume  
 chamber (e.g., coaxial or telescoping tubes, compensat  
 ing reservoir)  
 188/316 ..Fluid through or around piston within chamber  
 188/317 ...Via fixed or variable orifice in piston  
 188/319.1 ....Having an orifice adjustment for both  
 jounce or bound (compression) and rebound

4 188/322.14 (1 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/322.13 .Valve structure or location  
 188/322.14 ..Foot valve

4 188/322.21 (1 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/322.19 .Cylinder structure  
 188/322.21 ..Having means for filling or recharging

4 267/64.16 (1 OR, 3 XR)  
 Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/64.11 .Comprising compressible fluid  
 267/64.15 ..With retarder  
 267/64.16 ...Leveling device

4 280/276 (2 OR, 2 XR)  
 Class 280 : LAND VEHICLES  
 280/29 WHEELED  
 280/200 .Occupant propelled type  
 280/263 ..With steering  
 280/270 ...One-wheel controlled  
 280/274 ....Frames and running gear  
 280/275 .....Yielding  
 280/276 .....Front forks and heads

4 280/5.503 (3 OR, 1 XR)  
 Class 280 : LAND VEHICLES  
 280/5.5 SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
 (I.E., ACTIVE SUSPENSION CONTROL)  
 280/5.503 .Priority assignment between diverse control  
 criterion

4 701/48 (0 OR, 4 XR)  
 Class 701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND  
 RELATIVE LOCATION  
 701/1 VEHICLE CONTROL, GUIDANCE, OPERATION, OR  
 INDICATION  
 701/36 .Vehicle subsystem or accessory control  
 701/48 ..Cooperative or multiple control (e.g.,  
 suspension and braking)

3 188/266.7 (3 OR, 0 XR)  
 Class 188 : BRAKES



## 10670994\_CLSTITLES

188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/266.7 .Piezoelectric

3 188/269 (2 OR, 1 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/269 .Using diverse fluids

3 188/282.5 (0 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/281 .Resistance alters relative to direction of  
 thrust member (e.g., high resistance in one direction,

low

in the other)  
 188/282.1 ..Via valved orifice in thrust member  
 188/282.5 ...Flexible flap-type valve (e.g., compression  
 washers)

3 188/285 (1 OR, 2 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/284 .Position of thrust member relative to chamber  
 188/285 ..Having a fluid flow passage adjusted manually  
 (e.g., threaded plug, threaded rod, gearing)

3 188/286 (0 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/284 .Position of thrust member relative to chamber  
 188/286 ..Having aperture in chamber wall

3 188/316 (0 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/297 .Having a thrust member with a variable volume  
 chamber (e.g., coaxial or telescoping tubes, compensatin  
 g reservoir)  
 188/316 ..Fluid through or around piston within chamber

3 188/322.17 (0 OR, 3 XR)  
 Class 188 : BRAKES  
 188/266 INTERNAL-RESISTANCE MOTION RETARDER  
 188/322.16 .Including seal or guide  
 188/322.17 ..Between piston rod and cylinder

3 267/124 (0 OR, 3 XR)  
 Class 267 : SPRING DEVICES  
 267/113 FLUID  
 267/118 .Expansible-contractible chamber device  
 267/124 ..Piston

3 267/136 (0 OR, 3 XR)  
 Class 267 : SPRING DEVICES  
 267/136 RESILIENT SHOCK OR VIBRATION ABSORBER

10670994\_CLSTITLES

- 3 267/140 (0 OR, 3 XR)
  - Class 267 : SPRING DEVICES
  - 267/136 RESILIENT SHOCK OR VIBRATION ABSORBER
  - 267/139 .Bumper
  - 267/140 ..Rubber
- 3 267/221 (1 OR, 2 XR)
  - Class 267 : SPRING DEVICES
  - 267/2 VEHICLE
  - 267/195 .Mechanical spring and nonresilient retarder  
(e.g., shock absorber)
  - 267/217 ..Fluid retarder
  - 267/221 ...Helical coil spring
- 3 267/64.11 (1 OR, 2 XR)
  - Class 267 : SPRING DEVICES
  - 267/2 VEHICLE
  - 267/64.11 .Comprising compressible fluid
- 3 267/64.13 (0 OR, 3 XR)
  - Class 267 : SPRING DEVICES
  - 267/2 VEHICLE
  - 267/64.11 .Comprising compressible fluid
  - 267/64.13 ..Including compressible liquid
- 3 267/64.24 (2 OR, 1 XR)
  - Class 267 : SPRING DEVICES
  - 267/2 VEHICLE
  - 267/64.11 .Comprising compressible fluid
  - 267/64.15 ..With retarder
  - 267/64.23 ...Having flexible wall
  - 267/64.24 ....Including rolling lobe between telescoping  
members
- 3 267/64.25 (1 OR, 2 XR)
  - Class 267 : SPRING DEVICES
  - 267/2 VEHICLE
  - 267/64.11 .Comprising compressible fluid
  - 267/64.15 ..With retarder
  - 267/64.25 ...Having plural compressible fluid springs
- 3 280/5.507 (1 OR, 2 XR)
  - Class 280 : LAND VEHICLES
  - 280/5.5 SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
(I.E., ACTIVE SUSPENSION CONTROL)
  - 280/5.507 .Lateral and longitudinal vehicle attitude  
control (e.g., combinations of antidive, antipitch,  
antiroll, antisquat, antiway, antiyaw, riding, or  
suspension height)
- 3 280/5.51 (1 OR, 2 XR)
  - Class 280 : LAND VEHICLES
  - 280/5.5 SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
(I.E., ACTIVE SUSPENSION CONTROL)
  - 280/5.508 .Lateral vehicle disposition
  - 280/5.51 ..Steering element responsive (e.g., steering  
angle, steering rate)

## 10670994\_CLSTITLES

- 3 280/5.513 (1 OR, 2 XR)  
     Class 280 : LAND VEHICLES  
     280/5.5     SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
                   (I.E., ACTIVE SUSPENSION CONTROL)  
     280/5.513   .Longitudinal vehicle disposition (e.g.,  
                   antidive, antipitch, antisquat)
- 3 280/5.514 (1 OR, 2 XR)  
     Class 280 : LAND VEHICLES  
     280/5.5     SUSPENSION MODIFICATION ENACTED DURING TRAVEL  
                   (I.E., ACTIVE SUSPENSION CONTROL)  
     280/5.514   .Riding or suspension height (e.g.,  
                   ground-clearance, "trim height")
- 3 293/120 (1 OR, 2 XR)  
     Class 293 : VEHICLE FENDERS  
     293/102     BUFFER OR BUMPER TYPE  
     293/120     .Composite bumper
- 2 53/101 (0 OR, 2 XR)  
     Class 053 : PACKAGE MAKING  
     53/79       GAS FILLING AND/OR EVACUATING OF RECEPTACLE AND  
                   CLOSING  
     53/86       ..Within enclosure  
     53/97       ..With closure assembling means  
     53/101      ...Mechanically actuated plunger or platen
- 2 53/403 (0 OR, 2 XR)  
     Class 053 : PACKAGE MAKING  
     53/396      METHODS  
     53/403      .Gas filling and/or evacuating and closing
- 2 53/88 (0 OR, 2 XR)  
     Class 053 : PACKAGE MAKING  
     53/79       GAS FILLING AND/OR EVACUATING OF RECEPTACLE AND  
                   CLOSING  
     53/86       ..Within enclosure  
     53/88       ..For receptacle head only
- 2 137/554 (0 OR, 2 XR)  
     Class 137 : FLUID HANDLING  
     137/551     WITH INDICATOR, REGISTER, RECORDER, ALARM OR  
                   INSPECTION MEANS  
     137/553     ..Position or extent of motion indicator  
     137/554     ..Electrical
- 2 137/625.37 (0 OR, 2 XR)  
     Class 137 : FLUID HANDLING  
     137/561R    SYSTEMS  
     137/625     ..Multi-way valve unit  
     137/625.28   ..Dividing into parallel flow paths with  
                   recombining  
     137/625.33   ...Reciprocating  
     137/625.37   ....Piston
- 2 141/349 (2 OR, 0 XR)  
     Class 141 : FLUENT MATERIAL HANDLING, WITH RECEIVER OR  
                   RECEIVER COACTING MEANS  
     141/311R    FILLING MEANS WITH RECEIVER OR RECEIVER

## 10670994\_CLSTITLES

## COACTING MEANS

141/348 .Supply means carried receiver flow control  
opening means

141/349 ..Coupling controls receiver inlet flow

2 188/266.3 (0 OR, 2 XR)

Class 188 : BRAKES

188/266 INTERNAL-RESISTANCE MOTION RETARDER

188/266.1 .Motion damped from condition (e.g., bump,  
speed change) detected outside of retarder

188/266.2 ..Condition actuates valve or regulator

188/266.3 ...Of the rotary type

2 188/266.8 (0 OR, 2 XR)

Class 188 : BRAKES

188/266 INTERNAL-RESISTANCE MOTION RETARDER

188/266.8 .With failure or malfunction detection

2 188/282.2 (2 OR, 0 XR)

Class 188 : BRAKES

188/266 INTERNAL-RESISTANCE MOTION RETARDER

188/281 .Resistance alters relative to direction of  
thrust member (e.g., high resistance in one direction,

low

in the other)

188/282.1 ..Via valved orifice in thrust member

188/282.2 ...Valve actuated by electrical system

2 188/282.6 (2 OR, 0 XR)

Class 188 : BRAKES

188/266 INTERNAL-RESISTANCE MOTION RETARDER

188/281 .Resistance alters relative to direction of  
thrust member (e.g., high resistance in one direction,

low

in the other)

188/282.1 ..Via valved orifice in thrust member

188/282.5 ...Flexible flap-type valve (e.g., compression  
washers)

188/282.6 ....Having flow passage, cutout, aperture,  
slot, etc.

2 188/282.7 (0 OR, 2 XR)

Class 188 : BRAKES

188/266 INTERNAL-RESISTANCE MOTION RETARDER

188/281 .Resistance alters relative to direction of  
thrust member (e.g., high resistance in one direction,

low

in the other)

188/282.1 ..Via valved orifice in thrust member

188/282.7 ...Ball-type valve

2 188/282.8 (0 OR, 2 XR)

Class 188 : BRAKES

188/266 INTERNAL-RESISTANCE MOTION RETARDER

188/281 .Resistance alters relative to direction of  
thrust member (e.g., high resistance in one direction,

low

in the other)

188/282.1 ..Via valved orifice in thrust member

## 10670994\_CLSTITLES

188/282.8      ...Spring-loaded valve

2 188/322.12      (0 OR, 2 XR)  
Class 188 : BRAKES  
188/266      INTERNAL-RESISTANCE MOTION RETARDER  
188/322.12      .Including protective shield for retarder

2 188/322.16      (0 OR, 2 XR)  
Class 188 : BRAKES  
188/266      INTERNAL-RESISTANCE MOTION RETARDER  
188/322.16      .Including seal or guide

2 244/100R      (1 OR, 1 XR)  
Class 244 : AERONAUTICS  
244/100R      LANDING GEAR

2 244/102R      (1 OR, 1 XR)  
Class 244 : AERONAUTICS  
244/100R      LANDING GEAR  
244/102R      .Retractable

2 244/104R      (0 OR, 2 XR)  
Class 244 : AERONAUTICS  
244/100R      LANDING GEAR  
244/103R      .Wheel  
244/104R      ..Resiliently mounted

2 248/421      (0 OR, 2 XR)  
Class 248 : SUPPORTS  
248/127      STAND  
248/157      .Adjustable vertically  
248/421      ..Toggle or link

2 248/550      (1 OR, 1 XR)  
Class 248 : SUPPORTS  
248/550      WITH CONDITION RESPONSIVE CONTROL MEANS

2 248/560      (0 OR, 2 XR)  
Class 248 : SUPPORTS  
248/560      RESILIENT SUPPORT

2 248/615      (0 OR, 2 XR)  
Class 248 : SUPPORTS  
248/560      RESILIENT SUPPORT  
248/615      .Resilient foot or bumper

2 248/634      (0 OR, 2 XR)  
Class 248 : SUPPORTS  
248/560      RESILIENT SUPPORT  
248/634      .Nonmetallic resilient element

2 251/129.15      (0 OR, 2 XR)  
Class 251 : VALVES AND VALVE ACTUATION  
251/129.01      ELECTRICALLY ACTUATED VALVE  
251/129.15      .Including solenoid

2 267/126      (0 OR, 2 XR)  
Class 267 : SPRING DEVICES  
267/113      FLUID

## 10670994\_CLSTITLES

- 267/118 .Expansible-contractible chamber device  
 267/124 ..Piston  
 267/126 ...System
- 2 267/127 (0 OR, 2 XR)  
 Class 267 : SPRING DEVICES  
 267/113 FLUID  
 267/118 .Expansible-contractible chamber device  
 267/124 ..Piston  
 267/126 ...System  
 267/127 ....Trans-piston passage
- 2 267/131 (2 OR, 0 XR)  
 Class 267 : SPRING DEVICES  
 267/131 SEAT SUPPORT
- 2 267/217 (0 OR, 2 XR)  
 Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/195 .Mechanical spring and nonresilient retarder  
 (e.g., shock absorber)  
 267/217 ..Fluid retarder
- 2 267/64.21 (1 OR, 1 XR)  
 Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/64.11 .Comprising compressible fluid  
 267/64.15 ..With retarder  
 267/64.16 ...Leveling device  
 267/64.19 ....Having flexible wall  
 267/64.21 .....Including rolling lobe between telescoping  
 members
- 2 267/64.22 (2 OR, 0 XR)  
 Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/64.11 .Comprising compressible fluid  
 267/64.15 ..With retarder  
 267/64.22 ...Having metering pin for varying spring rate
- 2 267/64.23 (0 OR, 2 XR)  
 Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/64.11 .Comprising compressible fluid  
 267/64.15 ..With retarder  
 267/64.23 ...Having flexible wall
- 2 267/64.26 (1 OR, 1 XR)  
 Class 267 : SPRING DEVICES  
 267/2 VEHICLE  
 267/64.11 .Comprising compressible fluid  
 267/64.15 ..With retarder  
 267/64.26 ...Having telescoping cylinders
- 2 277/552 (0 OR, 2 XR)  
 Class 277 : SEAL FOR A JOINT OR JUNCTURE  
 277/345 SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E.,  
 DYNAMIC SEAL)

## 10670994\_CLSTITLES

- 277/500 .Circumferential contact seal for other than piston
- 277/549 ..Peripheral radially sealing flexible projection (e.g., lip seal, etc.)
- 277/552 ...Having pressure relief or venting feature
- 2 277/565 (0 OR, 2 XR)
  - Class 277 : SEAL FOR A JOINT OR JUNCTURE
  - 277/345 SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E., DYNAMIC SEAL)
  - 277/500 .Circumferential contact seal for other than piston
  - 277/549 ..Peripheral radially sealing flexible projection (e.g., lip seal, etc.)
  - 277/562 ...Plural peripheral radially sealing flexible projections
  - 277/565 ....On radial facing side of single seal
- 2 280/124.101 (0 OR, 2 XR)
  - Class 280 : LAND VEHICLES
  - 280/29 WHEELED
  - 280/80.1 .Running gear
  - 280/124.1 ..Suspension arrangement
  - 280/124.101 ...Including preparatory elasticity parameter selection
- 2 280/124.158 (1 OR, 1 XR)
  - Class 280 : LAND VEHICLES
  - 280/29 WHEELED
  - 280/80.1 .Running gear
  - 280/124.1 ..Suspension arrangement
  - 280/124.157 ...Fluidic suspension
  - 280/124.158 ....Hydraulic and pneumatic
- 2 280/284 (2 OR, 0 XR)
  - Class 280 : LAND VEHICLES
  - 280/29 WHEELED
  - 280/200 .Occupant propelled type
  - 280/281.1 ..Frames and running gear
  - 280/283 ...Yielding
  - 280/284 ....Rear forks
- 2 293/102 (0 OR, 2 XR)
  - Class 293 : VEHICLE FENDERS
  - 293/102 BUFFER OR BUMPER TYPE
- 2 293/132 (0 OR, 2 XR)
  - Class 293 : VEHICLE FENDERS
  - 293/102 BUFFER OR BUMPER TYPE
  - 293/132 .Bumper having impact force absorbing means directly interposed between bumper and vehicle structure
- 2 293/134 (0 OR, 2 XR)
  - Class 293 : VEHICLE FENDERS
  - 293/102 BUFFER OR BUMPER TYPE
  - 293/132 .Bumper having impact force absorbing means directly interposed between bumper and vehicle structure
  - 293/134 ..Fluid shock absorber type

## 10670994\_CLSTITLES

- 2 293/136 (0 OR, 2 XR)  
 Class 293 : VEHICLE FENDERS  
 293/102 BUFFER OR BUMPER TYPE  
 293/132 .Bumper having impact force absorbing means  
 directly interposed between bumper and vehicle structur
- e
- 293/135 ..Spring type  
 293/136 ...Elastomeric
- 2 428/423.1 (0 OR, 2 XR)  
 Class 428 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES  
 428/411.1 COMPOSITE (NONSTRUCTURAL LAMINATE)  
 428/423.1 .Of polyamidoester (polyurethane,  
 polyisocyanate, polycarbamate, etc.)
- 2 521/155 (2 OR, 0 XR)  
 Class 521 : SYNTHETIC RESINS OR NATURAL RUBBERS -- PART  
 OF THE CLASS 520 SERIES  
 521/50 .CELLULAR PRODUCTS OR PROCESSES OF PREPARING A  
 CELLULAR PRODUCT, E.G., FOAMS, PORES, CHANNELS, ETC.  
 521/155 ..Cellular product derived from a -N=C=X  
 containing reactant wherein X is a chalcogen atom
- 2 521/174 (0 OR, 2 XR)  
 Class 521 : SYNTHETIC RESINS OR NATURAL RUBBERS -- PART  
 OF THE CLASS 520 SERIES  
 521/50 .CELLULAR PRODUCTS OR PROCESSES OF PREPARING A  
 CELLULAR PRODUCT, E.G., FOAMS, PORES, CHANNELS, ETC.  
 521/155 ..Cellular product derived from a -N=C=X  
 containing reactant wherein X is a chalcogen atom  
 521/170 ...With -XH reactant wherein X is a chalcogen  
 atom  
 521/174 ....-XH reactant contains a C-X-C group
- 2 521/50 (0 OR, 2 XR)  
 Class 521 : SYNTHETIC RESINS OR NATURAL RUBBERS -- PART  
 OF THE CLASS 520 SERIES  
 521/50 .CELLULAR PRODUCTS OR PROCESSES OF PREPARING A  
 CELLULAR PRODUCT, E.G., FOAMS, PORES, CHANNELS, ETC.
- 2 701/38 (1 OR, 1 XR)  
 Class 701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND  
 RELATIVE LOCATION  
 701/1 VEHICLE CONTROL, GUIDANCE, OPERATION, OR  
 INDICATION  
 701/36 .Vehicle subsystem or accessory control  
 701/37 ..Suspension control  
 701/38 ...Attitude change suppressive control (e.g.,  
 antiroll or antipitch)